AMENDMENTS TO THE CLAIMS:

Claim 1 (Currently Amended) ~~Method~~ A method for a digital transmission system, in which a first and second known symbol sequence ~~({$s_1, s_2, ..., s_M$})~~ are transmitted, the frequency offset ~~(ΔF)~~ of the transmission system is estimated by comparing a first section ~~(^1f_M)~~ of the received signal ~~(r)~~ corresponding to the first symbol sequence with a second ~~action~~ section ~~(^2f_M)~~ of the received signal ~~(r)~~ corresponding to the second symbol sequence, and the square of the absolute value of a pulse response ~~(h)~~ of the transmission system is reduced in a time domain in order to lessen the influence of symbols ~~(x)~~ adjacent to the first or second known symbol sequence ~~({$s_1, s_2, ..., s_M$})~~ on the first and second sections ~~($^1f_M, ^2f_M$)~~, respectively, of the received signal ~~(r).~~, wherein the energy of a domain of the pulse response of the transmission system relative to the total energy of the pulse response is reduced with the aid of an all-pass filter, and wherein the all-pass filter is adapted to achieve a low-phase pulse response of the transmission system.

Claim 2 (Currently Amended) ~~Method~~ The method according to Claim 1, ~~in which~~ wherein the first and second symbol sequence ~~({$s_1, s_2, ..., s_M$})~~ are selected to be identical to one another.

Claim 3 (Currently Amended) ~~Method~~ The method according to Claim 1 or 2, ~~in which~~ wherein the reduction in the square of the absolute value of the domain of the pulse response ~~(h)~~ of the transmission system is undertaken with the aid of a filter ~~(14)~~.

Claim 4 (Currently Amended) ~~Method~~ The method according to Claim 3, ~~in which~~ wherein ~~a~~ the pulse response ~~(h)~~ of the transmission system is estimated.

Claim 5 (Currently Amended) ~~Method~~ The method according to Claim 4, ~~in which~~ wherein coefficients of the filter ~~(14)~~ are determined and/or adapted by means of the estimated pulse response ~~(h)~~.

Claim 6 (Currently Amended) ~~Method~~ The method according to Claim ~~6~~ 1, ~~in which~~ wherein the pulse response ~~(h)~~ is shortened.

Claim 7 (Cancelled)

Claim 8 (Cancelled)

Claim 9 (Currently Amended) ~~Method~~ The method according to Claim ~~8~~ 1, ~~in which~~ wherein one value ~~(^1f_M, ^2f_M)~~ of the first and second sections of the received signal ~~(r)~~ is determined by sampling the received signal ~~(r)~~.

Claim 10 (Currently Amended) ~~Method~~ The method according to Claim 9, ~~in which~~ wherein the angular difference ~~($\Delta\varphi$)~~ in the complex plane between the first and second samples ~~(^1f_M, ^2f_M)~~ is used to estimate the frequency offset ~~(ΔF)~~.

Claim 11 (Currently Amended) ~~Method~~ The method according to Claim 10, ~~in which~~ wherein several pairs of samples ~~([$^1f_1$, $^2f_1$], [$^1f_2$, $^2f_2$], ..., [^1f_M, ^2f_M])~~ are averaged over the angular differences ~~($\Delta\varphi$)~~.

Claim 12 (Currently Amended) ~~Method~~ The method according to Claim 11, ~~in which~~ wherein the signals are transmitted in blocks~~, in particular in accordance with a GSM standard and/or EDGE standard~~.

Claim 13 (Currently Amended) ~~Device (1)~~ A device for a digital transmission system, comprising a transmitting device for transmitting a first and a second known symbol sequence ~~({s_1, s_2, ..., s_M})~~, and means ~~(15)~~ for comparing a first section ~~(^1f_M)~~ of the received signal ~~(r)~~ corresponding to the first symbol sequence

with a second section (~~^2f_M~~) of the received signal (~~r~~) corresponding to the second symbol sequence~~, as a result of which it is possible to estimate~~ from which the frequency offset (~~ΔF~~) of the transmission system is estimated, characterized in that the device (~~1~~) comprises a first module (~~14~~) for reducing the square of the absolute value of a pulse response (~~h~~) of the transmission system in a time domain~~, it being possible by means of the reduction~~ in order to lessen the influence of symbols (~~x~~) adjacent to the first or second known symbol sequence (~~$\{s_1, s_2, \ldots, s_M\}$~~) on the first and second section (~~$^1f_M, ^2f_M$~~), respectively, of the received signal (~~r~~). wherein the first module comprises an all-pass filter, and wherein the all-pass filter is adapted to achieve a low-phase pulse response of the transmission system.

Claim 14 (Currently Amended) ~~Device~~ (~~1~~) The device according to Claim 13, ~~in which~~ wherein the first and second symbol sequence (~~$\{s_1, s_2, \ldots, s_M\}$~~) are identical to one another.

Claim 15 (Currently Amended) ~~Device~~ (~~1~~) The device according to Claim 13 or 14~~, in which~~ wherein the first module (~~14~~) comprises a filter.

Claim 16 (Currently Amended) ~~Device~~ (~~1~~) The device according to Claim 15, ~~which comprises~~ further comprising a second module (~~11~~) for estimating a pulse response (~~$\hat{h}$~~).

Claim 17 (Currently Amended) ~~Device~~ (~~1~~) The device according to Claim 16, ~~which comprises~~ further comprising a third module (~~12~~) for determining and/or adapting suitable coefficients of the filter (~~14~~).

Claim 18 (Currently Amended) ~~Device (1)~~ The device according to Claim ~~17~~ 13 ~~in which~~ wherein the pulse response (~~h) can be~~ is shortened by means of the first module (~~14~~).

Claim 19 (Cancelled)

Claim 20 (Cancelled)

Claim 21 (Currently Amended) ~~Device (1)~~ The device according to Claim ~~20~~ 13, ~~which comprises~~ further comprising a sampling device for the received signal ~~(r)~~, with the aid of which one value ~~(^1f_M, ^2f_M)~~ of the first and second section of the received signal ~~(r)~~ can be sampled.

Claim 22 (Currently Amended) ~~Device (1)~~ The device according to Claim 21, ~~which comprises~~ further comprising means ~~(16)~~ for estimating the frequency offset ~~(ΔF)~~ from the angular difference ~~($\Delta\varphi$)~~ in the complex plane between the first and second sample ~~(^1f_M, ^2f_M)~~.

Claim 23 (Currently Amended) ~~Device (1)~~ The device according to Claim 22, ~~which comprises~~ further comprising means for determining an average value of the angular differences ~~($\Delta\varphi$)~~ of several pairs of samples ~~([$^1f_1$, $^2f_1$], [$^1f_2$, $^2f_2$], ..., [^1f_M, ^2f_M])~~.

Claim 24 (Currently Amended) ~~Device (1)~~ The device according to Claim 23, ~~which~~ wherein the device is adapted for transmission in blocks~~, in particular in accordance with a GSM standard and/or EDGE standard~~.